

## CLAIMS:

1. A method of converting of a first set (100a) of initial segments of an image into a second set (100b) of updated segments (A',B',C',D') of the image, the method comprising iterative updates of intermediate segments (A,B,C,D) being derived from respective initial segments, a particular update comprising determining whether a particular pixel (300) being located at a border (302) between a first one of the intermediate segments (A), and a second one of the intermediate segments (B), should be moved from the first one of the intermediate segments (A) to the second one of the intermediate segments (B), on basis of a pixel value of the particular pixel, on basis of a first parameter of the first one of the intermediate segments (A) and on basis of a second parameter of the second one of the intermediate segments (B), characterized in that first a number of iterative updates are performed for pixels of a first two-dimensional block of pixels (200) of the image and after that the number of iterative updates are performed for pixels of a second two-dimensional block of pixels (204) of the image.
2. A method of converting as claimed in claim 1, characterized in that the first parameter corresponds to a mean color value of the first intermediate segment, the second parameter corresponds to a mean color value of the second intermediate segment and the pixel value of the particular pixel represents the color value of the particular pixel.
3. A method of converting as claimed in claim 1 or 2, characterized in that the particular update is based on a regularization term depending on the shape of the first one of the intermediate segments, the regularization term being computed on basis of a first group of pixels of the first two-dimensional block of pixels.
4. A method of converting as claimed in claim 1, characterized in that a first sequence of the number of iterative updates are performed in a row-by-row scanning within the first block of pixels and a second sequence of the number of iterative updates are performed in a column-by-column scanning within the first block of pixels.

5. A method of converting as claimed in claim 1, characterized in that the first two-dimensional block of pixels is located adjacent to the second two-dimensional block of pixels.
- 5 6. A method of converting as claimed in Claim 1, characterized in that the regularization term is computed on basis of the first group of pixels of the first two-dimensional block of pixels and a second group of pixels of the second two-dimensional block of pixels.
- 10 7. A conversion unit (706) for converting a first set (100a) of initial segments of an image into a second set (100b) of updated segments (A',B',C',D') of the image, the conversion unit being arranged to perform iterative updates of intermediate segments (A,B,C,D) being derived from respective initial segments, a particular update comprising determining whether a particular pixel (300) being located at a border (302) between a first  
15 one of the intermediate segments (A), and a second one of the intermediate segments (B), should be moved from the first one of the intermediate segments (A) to the second one of the intermediate segments (B), on basis of a pixel value of the particular pixel, on basis of a first parameter of the first one of the intermediate segments (A) and on basis of a second parameter of the second one of the intermediate segments (B), characterized in that the  
20 conversion unit (706) comprises computation means for performing first a number of iterative updates for pixels of a first two-dimensional block of pixels (200) of the image and for, after that, performing the number of iterative updates for pixels of a second two-dimensional block of pixels (204) of the image.
- 25 8. An image processing apparatus (600), comprising:  
- receiving means (602) for receiving a signal representing an image;  
- a segmentation unit (604) for determining a first set of initial segments of the image;  
- a conversion unit (606) for converting the first set of initial segments into a  
30 second set of updated segments, the conversion unit as claimed in claim 7; and  
- an image processing unit (608) for processing the image on basis of the second set of updated segments.

9. An image processing apparatus (600) as claimed in claim 8, whereby the image processing unit (608) is designed to perform video compression.